

STATISTICALLY BASED CASCADED ANALOG-TO-DIGITAL
CONVERTER CALIBRATION TECHNIQUE

ABSTRACT OF THE DISCLOSURE

An auto-calibration technique for optimizing the transfer function of analog-to-digital converters. The technique can be applied to analog-to-digital converter (ADC) architectures employing a cascade of n-stages to form a composite n-bit ADC transfer function. The technique utilizes evaluation of the probability density function of individual bits to determine error sign, minimize error magnitude and assure calibration convergence.